



AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical recording medium suitable for recording/ or reproducing information by irradiating a laser beam at a wavelength between 395~425 nm onto a recording surface ~~of~~ in the optical recording medium, the laser beam being incident from a ~~substrate~~-side of the optical recording medium through an objective lens having a numerical aperture of 0.62~0.68,

~~said the~~ optical recording medium comprising at least one substrate and at least one recording surface, ~~said the~~ substrate having a thickness greater than 0.2 mm, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of said recording medium is greater than 13.8 Gbytes per one recording surface.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The optical medium of claim 1, wherein the optical recording medium comprises a first substrate ~~a first substrate of the optical recording medium has a pit pattern on a surface thereof;~~ and a second substrate is formed over ~~the surface of~~ the first substrate, wherein the second substrate has a pit pattern on a surface thereof facing the first substrate.

5. (Original) The optical medium of claim 4, further comprising: a reflective film formed between the first and second substrates.

6. (Currently Amended) The optical medium of claim 1, wherein the optical recording medium comprises ~~further comprising:~~ a first substrate₁; a second substrate₂; ~~and a third substrate formed over the first substrate such that the second substrate is formed over a first surface of the first substrate, and the~~ third substrate is formed over a second surface, which is the opposite surface the first surface, of the first substrate.

7. (Original) The optical medium of claim 6, wherein the third substrate has a same thickness as the second substrate.

8. (Original) The optical medium of claim 6, wherein the second substrate has a first pit pattern, and the third substrate has a second pit pattern.

9. (Original) The optical medium of claim 6, wherein the first substrate has a first pit pattern on the first surface thereof and a second pit pattern on the second surface thereof.

10. (Currently Amended) The optical medium of claim 9, further comprising: a first reflective film formed between the first and second substrates; and a second reflective film formed between the first and third substrates.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) An optical recording/or reproducing method of conducting recording/or reproducing of information by irradiating a laser beam at a wavelength between 395~425 nm onto a recording surface ~~of~~in an optical recording medium having at least one substrate and at least one recording surface, the substrate having a thickness greater than 0.2 mm,

~~said~~the laser beam being incident on the substrate of the optical recording medium using an objective lens having a numerical aperture of 0.62~0.68, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of ~~said~~the optical recording medium is greater than 13.8 Gbytes per one recording surface.

14. (Currently Amended) An optical recording/or reproducing apparatus for conducting recording/or reproducing ~~for~~of information by irradiating a laser beam onto a recording surface

~~of~~in an optical recording medium having at least one substrate and at least one recording surface, and the substrate having a thickness greater than 0.2 mm,

~~said the optical recording/reproducing~~ apparatus comprising at least one laser beam source irradiating the laser beam at a wavelength between 395~425 nm and an objective lens for focusing the laser beam onto the optical recording medium, ~~said the~~ objective lens having a numerical aperture of 0.62~0.68, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of ~~said the optical~~ recording medium is greater than 13.8 Gbytes per one recording surface.

15. (Currently Amended) The optical recording/or reproducing apparatus as claimed in claim 14, further comprising:

a numerical aperture control means device ~~for~~ controlling the numerical aperture of the objective lens into 0.35 to 0.40, thereby recording ~~and or~~ reproducing a ~~second~~-recording medium with a substrate thickness of approximately 0.6 mm.

16. (Currently Amended) The optical recording/or reproducing apparatus as claimed in claim ~~15~~14, wherein the numerical aperture control means device controls the numerical aperture of the objective lens into about 0.24, thereby recording ~~and or~~ reproducing a ~~third~~-recording medium with a substrate thickness of approximately 1.2 mm.

17. (Currently Amended) The optical recording/or reproducing apparatus as claimed in claim 14, further comprising:

a numerical aperture control means device ~~for~~ controlling the numerical aperture of the objective lens into any one of 0.35 to 0.40 and about 0.24, thereby selectively recording ~~and or~~ reproducing a ~~second~~-recording medium with a substrate thickness of approximately 0.6 mm and a ~~third~~-recording medium with a substrate thickness of approximately 1.2 mm.

18. (Currently Amended) An optical recording medium suitable for recording/or reproducing information by irradiating a laser beam at a wavelength between 395~425 nm onto ~~a~~ at least one

recording surface ~~of~~in the optical recording medium, the laser beam being incident ~~from~~via at least one ~~a~~ substrate ~~side~~ of the optical recording medium ~~through~~by an objective lens having a numerical aperture of 0.62~0.68, ~~said optical recording medium comprising: at least one substrate and at least one recording surface, said~~the substrate having a thickness greater than 0.2 mm, ~~and a capacity of said~~ the optical recording medium having a capacity being more than 13.8 Gbytes per ~~one~~ recording surface, the optical recording medium comprising; ~~a first substrate of the optical recording medium having a pit pattern on a surface thereof;~~

a first substrate;

a second substrate formed over ~~the~~a surface of the first substrate, the second substrate having a pit patter on a surface facing the first substrate; and

a reflective film formed between the first and second substrates.

19. (Currently Amended) An optical recording medium suitable for recording/or reproducing information by irradiating a laser beam at a wavelength between 395~425 nm onto ~~a~~at least one recording surface ~~of~~in the optical recording medium, the laser beam being incident ~~from~~via at least one ~~a~~ substrate ~~side~~ of the optical recording medium ~~through~~by an objective lens having a numerical aperture of 0.62~0.68, ~~said optical recording medium comprising: at least one substrate and at least one recording surface, said~~the substrate having a thickness greater than 0.2 mm, and the optical recording medium having a capacity of ~~said recording medium~~ being greater than 13.8 Gbytes per ~~one recording surface~~recording surface, the optical recording medium comprising;

a first substrate;

a second substrate; and a third substrate formed over a first surface of the first substrate; ~~and such that the second substrate is formed over a first surface of the first substrate and~~

~~the~~a third substrate ~~is~~ formed over a second surface, which is the opposite surface of the first surface, of the first substrate.

20. (Original) The optical medium of claim 19, wherein the third substrate has a same thickness as the second substrate.

21. (Original) The optical medium of claim 19, wherein the second substrate has a first pit pattern, and the third substrate has a second pit pattern.

22. (Original) The optical medium of claim 19, wherein the first substrate has a first pit pattern on the first surface thereof and a second pit pattern on the second surface thereof.

23. (Currently Amended) The optical medium of claim 19 ~~22~~, further comprising: a first reflective film formed between the first and second substrates; and a second reflective film formed between the first and third substrates.

24. (Canceled)

25. (Original) The optical medium of claim 23, wherein a total thickness of the first substrate, the first reflective film, the second substrate, the second reflective film, and the third substrate substantially equals 1.2 mm.

26. (Currently Amended) An optical recording/or reproducing apparatus for conducting recording/reproducing for information by irradiating a laser beam onto ~~a~~ at least one recording surface ~~of~~ in an optical recording medium having at least one substrate ~~and at least one recording surface, and~~, the substrate having a thickness greater than 0.2 mm; and ~~a capacity of said the~~ optical recording medium having a capacity being greater than 13.8 Gbytes per one recording surface, ~~said optical recording/reproducing the~~ apparatus comprising:

at least one laser beam source irradiating the laser beam at a wavelength between 395~425 nm; ~~and~~

an objective lens ~~for~~ focusing the laser beam onto the optical recording medium, ~~said the~~ objective lens having a numerical aperture of 0.62~0.68; ~~and~~

a numerical aperture control ~~means~~ device ~~for~~ controlling the numerical aperture of the objective lens into 0.35 to 0.40, thereby recording and/or reproducing a ~~second~~ recording medium with a substrate thickness of approximately 0.6 mm.

27. (Currently Amended) The optical recording/or reproducing apparatus as claimed in claim 26, wherein the numerical aperture control ~~means~~ device controls the numerical aperture of the objective lens into about 0.24, thereby recording ~~and~~ or reproducing a ~~third~~ recording medium with a substrate thickness of approximately 1.2 mm.

28. (New) The optical recording medium as claimed in claim 1, wherein an optical aberration depending on a thickness of the substrate, a tilt margin, the wave length and the numerical aperture is less than 0.07λ , where the λ is the wave length.